

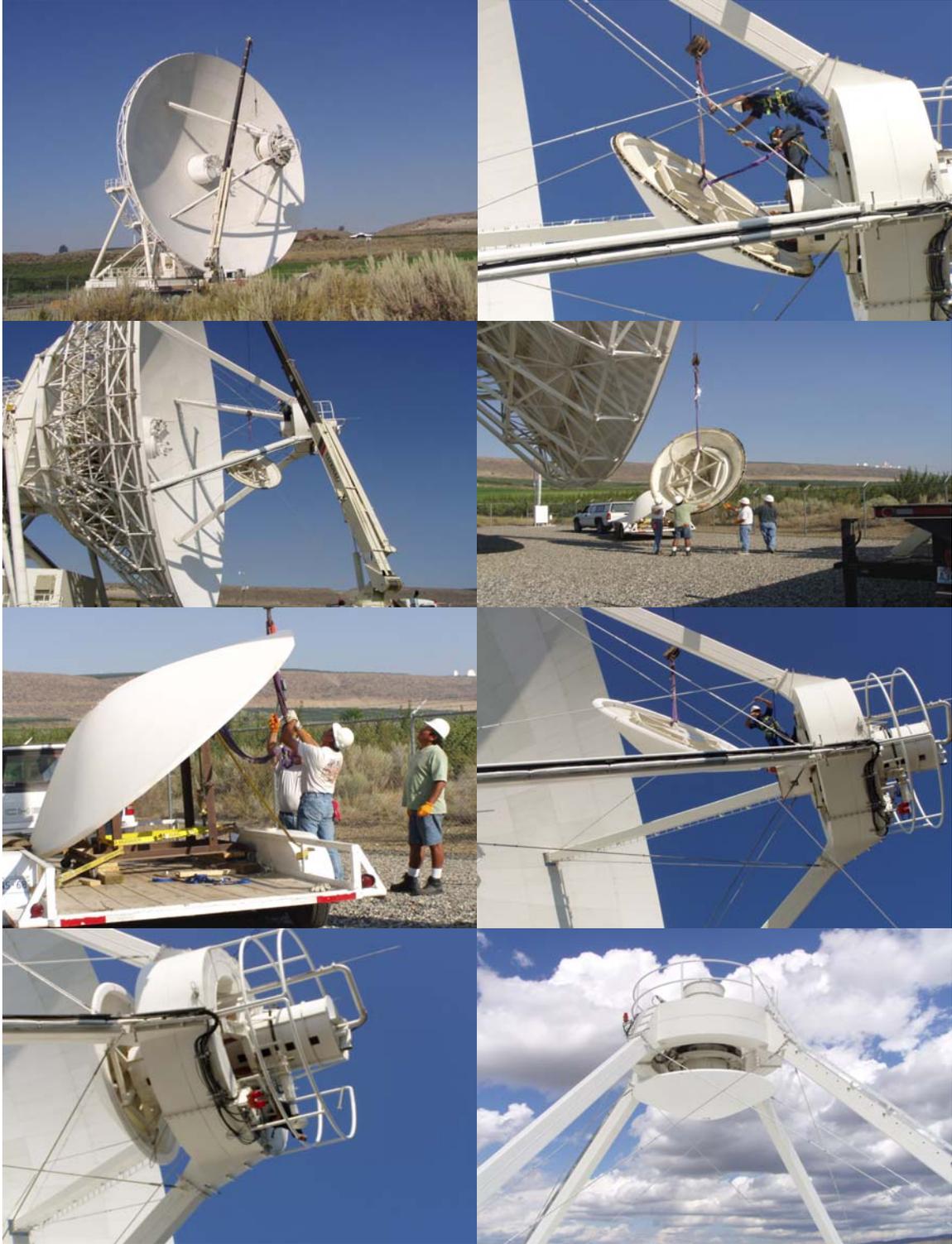
National Radio Astronomy Observatory
Socorro, New Mexico

VLBA Antenna Memo #56

Brewster, WA. VLBA Maintenance Visit July 28th thru August 8th 2004.

Team members consisted of Nelson Antencio, Steve Aragon, Eric Carlowe Kelly Greene, Ramon Gutierrez and Ken Lakies. VLBA Site Technicians Bob Sanderson and Mark Hofmann assisted in all areas of maintenance during the visit. A completed task list is attached.





The subreflector was replaced and the new one aligned.



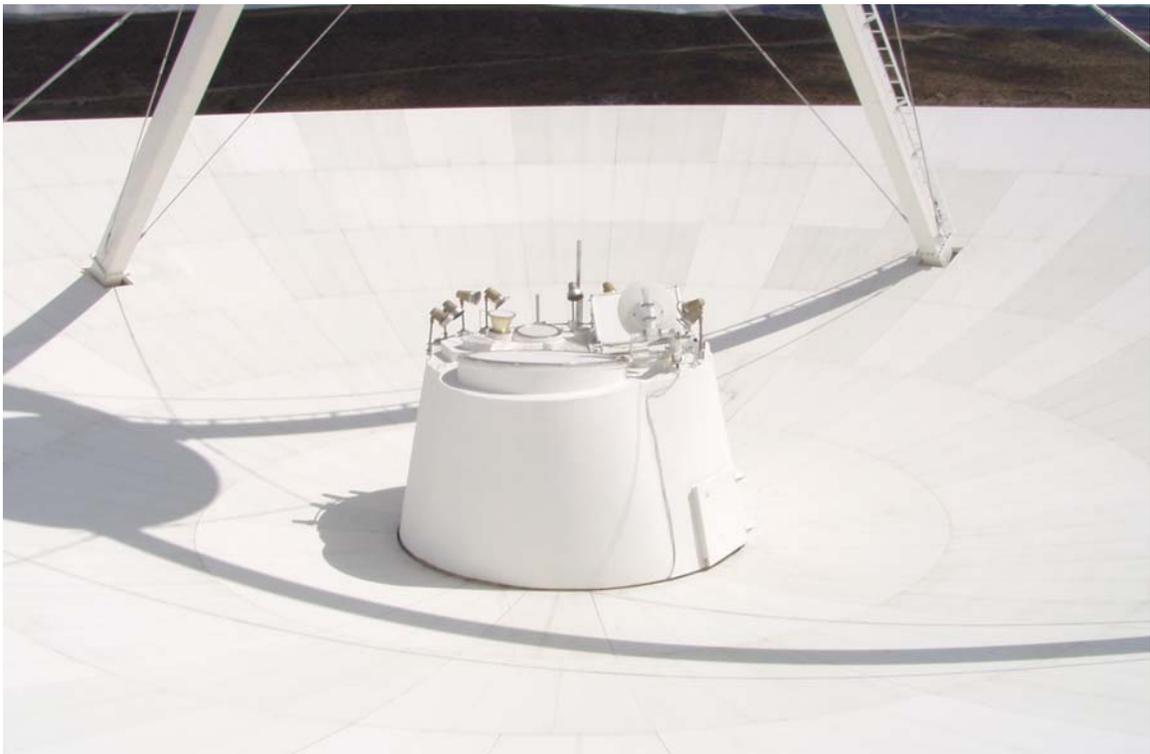
FRM was given a thorough inspection. A focus flex shaft was replaced and the new encoder coupling modification was installed.

FRM INA BEARING CHECK 50LBS PULL ON EAST MOTOR

East Travel:	+ .001	West Travel:	- .001
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FRM INA BEARING CHECK 50LBS PULL ON WEST MOTOR

East Travel:	- .001	West Travel:	+ .001
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Feed cone was spot sealed and painted with elastomeric



Dish panels are in good condition. Panels paint is in good condition. Quad legs paint and guy wires are in good condition.



Dichroic reflector is good condition. Elipsoid reflector is in good condition.



New digital tachs were installed on EL and AZ motors. All AZ and EL lube pump SJO power cables were replaced. Azimuth #2 motor was replaced. The ACU power supply and backplane upgrade were installed and tested.



Elevation synchro data and power cable connector was repaired. The encoder side cable wrap strain relief and mounting bracket was repaired.



A Marvair backup air conditioner was installed in the Ped room.



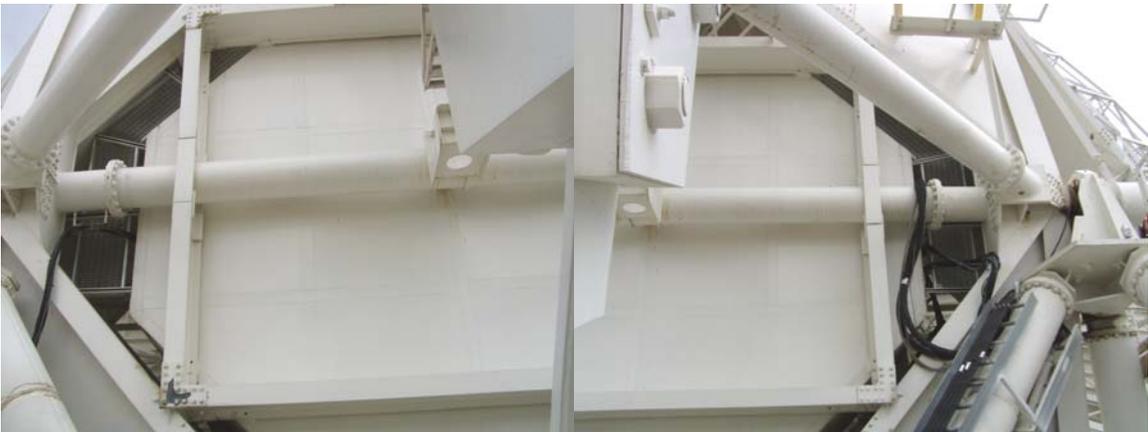
AZ bearings were inspected. AZ drive #1 outside bearing was replaced.

AZIMUTH BEARING GREASE INSPECTION

	INNER BEARING	OUTER BEARING
D1	No metal found/rollers scratchy	REPLACED
D2	NEW WHEEL	NEW WHEEL
I1	No flakes/race a little scratchy	No flakes/good races
I2	Few brass flakes/smooth race	No flakes/race a little scratchy
All bearings were very well lubricated.		

ELEVATION BEARING GREASE INSPECTION

Encoder	Good grease with no metal flakes.
Synchro	Good grease with no metal flakes.



Elevation axle has no visible signs of cracks. Paint is good condition. Pintle bearing is well greased with no metal flakes.



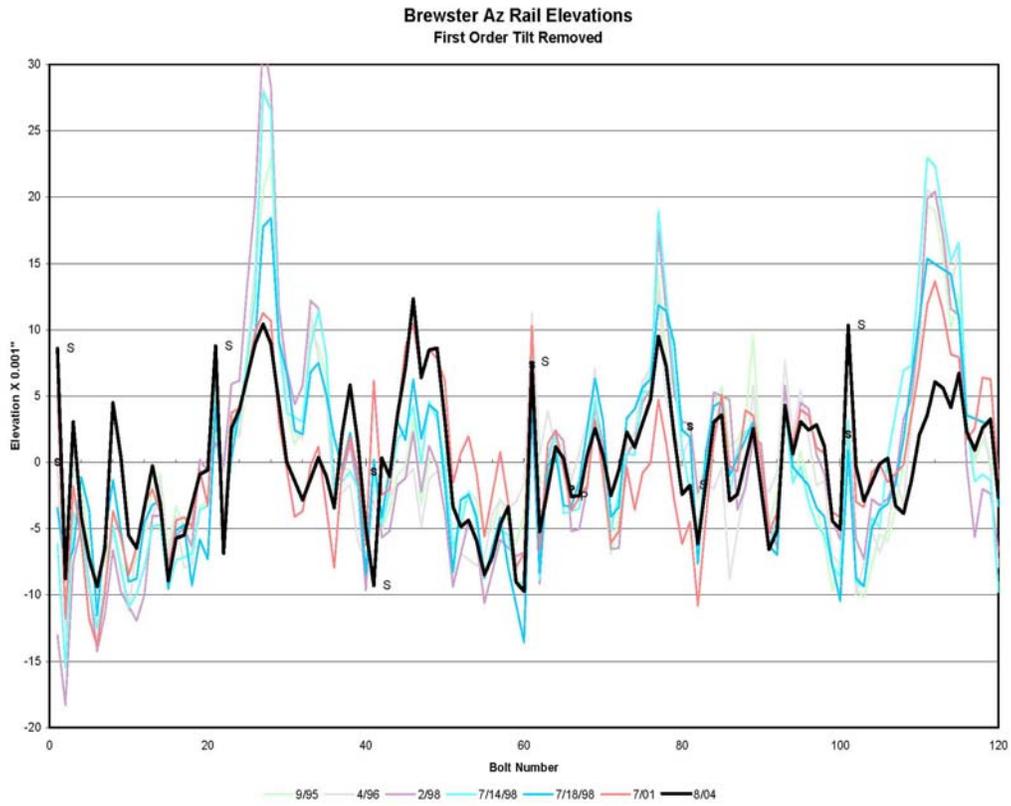
The antenna paint is in good condition.



Vulchem is beginning to deteriorate from this rail splice and all others.



The rail is pulverizing the grout in many spots. Vulchem is deteriorating all over the rail. Site Techs began removing vulchem while the maintenance team was on site and will continue removing vulchem until it is all removed.



The Brewster rail is very flat with less than .025\"/>